Claims

1. Method for graphically representing records arranged in a data table having columns and rows, comprising:

defining a set of visualization parameters for the data table;

clustering the records of the data table that have a common cluster parameter value in the visualization set of parameters;

sorting the clustered records in a predetermined order defined by a sort parameter value in the visualization set of parameters;

associating a geometric attribute primitive with the record or the cluster of records, said geometric attribute primitive defined by a shape selection parameter value in the visualization set of parameters for said record or the cluster of records;

associating a graphic attribute primitive with an associated geometric attribute primitive of the record or the cluster of records, said graphic attribute primitive defined by a decoration parameter value in the visualization set of parameters for said record or the cluster of records; and

graphically representing the sorted records or the clusters of records having the associated geometric and graphic attribute primitives.

2. The method of claim 1, wherein the set of visualization parameters for said records or the cluster of records in the database is arranged in form of a style sheet.

3. The method of claim 1, wherein a visualization parameter of the set operates on a single record or cluster of records of the database.

4. The method of claim 1, wherein the set of visualization parameters comprises parameters selected from the group consisting of a column of the data table, a local variable name, and programming language operators.

5. The method of claim 1, wherein the records or the clusters of records are graphically rendered in a time that is substantially a linear function of the number of records in the data table.

6. The method of claim 1, wherein the geometric attribute primitives are selected from the group consisting of position, size, and shape.

7. The method of claim 6, wherein the shape is selected from the group consisting of rectangle, polygon, ellipse, line and text.

8. The method of claim 1, wherein the graphic attribute primitives are selected from the group consisting of color, pattern, font, and line width.

9. The method of claim 1, further comprising:
selecting clusters from the clustered records;
associating sub-visualization parameters with selected clusters; and
performing the steps of associating and graphically rendering on the selected clusters.

10. The method of claim 1, wherein graphically rendering includes displaying visualizations selected from the group consisting of Gantt charts, histograms and 2D- and scatter plots, tree structures, and data tables.

11. Computer program comprising computer-executable code for causing a computer to:

define a set of visualization parameters for a record of a database, the database arranged in form of a data table having columns and rows;

cluster the records of the database that have a common cluster parameter value in the visualization set of parameters;

sort the clustered records in a predetermined order defined by a sort parameter value in the visualization set of parameters;

associate a geometric attribute primitive with the record or the cluster of records, said geometric attribute primitive defined by a shape selection parameter value in the visualization set of parameters for said record or the cluster of records;

associate a graphic attribute primitive with an associated geometric attribute primitive of the record or the cluster of records, said graphic attribute primitive defined by a decoration parameter value in the visualization set of parameters for said record or the cluster of records; and

graphically represent the sorted records or the clusters of records having the associated geometric and graphic attribute primitives.

12. The computer program of claim 11, wherein the set of visualization parameters for said records or the cluster of records in the database are arranged in form of a style sheet.

13. The computer program of claim 11, wherein a visualization parameter of the set operates on a single record or cluster of records of the database.

14. The computer program of claim 11, wherein the records or the clusters of records are graphically rendered in a time that is substantially a linear function of the number of records in the data table.

15. The computer program of claim 11, wherein the geometric attribute primitives are selected from the group consisting of position, size, and shape.

16. The computer program of claim 15, wherein the shape is selected from the group consisting of rectangle, polygon, ellipse, line and text.

17. The computer program of claim 11, wherein the graphic attribute primitives are selected from the group consisting of color, pattern, font, and line width.

18. The computer program of claim 11, further comprising:
selecting clusters from the clustered records;
associating sub-visualization parameters with selected clusters; and
performing the steps of associating and graphically rendering on the selected clusters.

19. The computer program of claim 11, wherein graphically rendering includes displaying visualizations selected from the group consisting of Gantt charts, histograms and 2D- and scatter plots, tree structures, and data tables.

20. Computer program code embodied in a computer-readable medium, comprising:
computer-executable program code for defining a set of visualization parameters for a record of the database arranged in a data table having columns and rows;

computer-executable program code for clustering the records of the database that have a common cluster parameter value in the visualization set of parameters;

computer-executable program code for sorting the clustered records in a predetermined order defined by a sort parameter value in the visualization set of parameters;

computer-executable program code for associating a geometric attribute primitive with the record or the cluster of records, said geometric attribute primitive defined by a shape selection parameter value in the visualization set of parameters for said record or the cluster of records;

computer-executable program code for associating a graphic attribute primitive with an associated geometric attribute primitive of the record or the cluster of records, said graphic attribute primitive defined by a decoration parameter value in the visualization set of parameters for said record or the cluster of records; and

computer-executable program code for graphically rendering the sorted records or the clusters of records having the associated geometric and graphic attribute primitives.